



University of Groningen

Should they stay or should they go? Reactivation and termination of low-tier customers

Blömeke, E.; Clement, M.; Bijmolt, T.H.A.

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2010

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Blömeke, E., Clement, M., & Bijmolt, T. H. A. (2010). Should they stay or should they go? Reactivation and termination of low-tier customers: Effects on satisfaction, word-of-mouth, and purchases. (SOM Research Reports; Vol. 10008). Groningen: University of Groningen, SOM research school.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Should they stay or should they go?

Reactivation and Termination of Low-Tier Customers:

Effects on Satisfaction, Word-of-Mouth, and Purchases

Eva Blömeke ^a

Michel Clement ^b

Tammo H. A. Bijmolt ^c

September 2010

submitted to: *International Journal of Research in Marketing*

^a Institute for Marketing and Media, University of Hamburg, Welckerstr. 8, 20354 Hamburg, Germany, Tel: +49 40 42838 8720, Fax: +49 40 42838 8722, EvaBloemeke@googlemail.com.

^b Institute for Marketing and Media, University of Hamburg, Welckerstr. 8, 20354 Hamburg, Germany, Tel: +49 40 42838 8720, Fax: +49 40 42838 8722, Michel.Clement@uni-hamburg.de.

^c Department of Marketing, Faculty of Economics and Business, University of Groningen, Landleven 5, 9747 AD Groningen, The Netherlands, Tel: +31 50 363 7319, Fax: +31 50 363 3720, t.h.a.bijmolt@rug.nl.

Should they stay or should they go?

Reactivation and Termination of Low-Tier Customers:

Effects on Satisfaction, Word-of-Mouth, and Purchases

Abstract:

Many companies face the problem of having a substantial number of low-tier customers – clients at the bottom of the customer pyramid. For this segment, it is necessary to either reactivate or terminate the customer relationships to increase profitability. Managers seek to learn more about marketing actions targeted towards low-tier customers and their response towards these actions. Therefore, we conducted a large field experiment in which we implemented a “last call” marketing action for a large sample of low-tier customers of a catalogue retailer ($N = 12,000$). The action aims at sales reactivation, but in case a customer should not react, the relationship will be terminated. We measure customer response in terms of satisfaction, (positive and negative) word-of-mouth, and purchase behavior. We find no harmful effects from relationship termination, such as dissatisfaction or negative word-of-mouth. The results indicate that the “last call” marketing action reactivates a small fraction of the low-tier customers. These customers remain active in the months following the action period. We discuss managerial implications of our findings and future research on low-tier customer segments.

Keywords: customer relationship management, low-tier customer segment, relationship termination, customer reactivation, catalogue retailing

1. Introduction

Many companies face the problem of having a substantial number of customers at the bottom of the customer pyramid (Zeithaml, Rust & Lemon, 2001). According business press reports, unprofitable customers account for up to 50 % of some banks' customers and up to 40 % of mail order companies' customers (e.g., Ang & Taylor, 2005). These customers are often inactive in terms of buying behavior and therefore generate very low profits, or are even unprofitable, since the cost of serving them is about equal to or even exceeds their revenues (Shapiro, Rangan, Moriarty & Ross, 1987). Although customer retention of highly profitable customers is often a critical success factor in customer relationship management (e.g., Fader & Hardie, 2007; Schmittlein, Morrison & Colombo, 1987), companies also face the question of whether, and how, reactivation or termination of relationships with low-tier customers maximizes profits (Mittal, Sarkees & Murshed, 2008). It is crucial for marketing managers to learn more about: (1) different actions that can be applied to low-tier customers, and (2) customer responses to an executed action (Thomas, Blattberg & Fox, 2004).

The predominant focus of customer relationship management literature is on how to retain and improve relationships with customers in the upper tiers of the customer pyramid, whereas little attention is paid to management of low-tier customer segments (Mittal, Sarkees & Murshed, 2008; Haenlein & Kaplan, 2009). Furthermore, most extant customer relationship literature only addresses the behavioral response of customers to marketing actions. Homburg, Droll, and Totzek (2008, p 126) state that, "further research in this field should use customer data to a greater extent [...]" and also that, "further research might address the effects of word of mouth in interactions of customers in different tiers or with different prospects." Therefore, this paper contributes to the existing literature in two ways: (1) we study the effectiveness of an action addressing the segment of low-tier customers; and (2) we study the action's effects on a broad range of customer responses: satisfaction, word-of-mouth, and purchase behavior.

We present the results of a large field experiment conducted in cooperation with a B2C catalogue retailer. The sample consists of 12,000 customers who belong to the low-tier segment. These customers have been inactive for a substantial amount of time and were identified by the retailer as running a high risk of becoming unprofitable shortly: the mailing of a new catalogue to the customer would lead to unprofitability if he or she does not place an order. In addition, future ongoing servicing (e.g. call-center usage) would lead to increasing costs for these clients. The sample was split up into one control group and three treatment groups. The treatment groups

received a mailing, which served as a “last call” marketing action for the low-tier segment as it gave customers an active notice with regard to a potential relationship status change. There were two possible outcomes: *reactivation* if a customer places an order or *termination* if a customer does not respond. In the first case, all services will continue to be provided as before. In case of termination, the company will immediately stop servicing the customer in terms of sending mail order catalogues and advertisements. This step diminishes customer choice and, therefore, can be expected to have negative effects. We collected and analyzed data at the individual customer level on actual purchase behavior as well as on satisfaction and word-of-mouth. The results indicate that the “last call” marketing action does indeed reactivate some customers. In addition, no negative effects on satisfaction and word-of-mouth are observed, implying that relationship termination can be a viable option to managing the low-tier segment.

The remainder of the paper is structured as follows. First, we start with a literature overview on the management of low-tier customers. Second, the conceptual framework and the research questions are presented. Next, we describe the field study. Finally, we present the results, followed by a discussion of management implications and suggestions for further research.

2. Literature Overview

In the customer relationship management (CRM) literature, the concept of the “customer pyramid” has been used to rank and categorize customers based on their profitability (Zeithaml, Rust & Lemon, 2001). The segment at the bottom of the pyramid is often relatively large in number of customers, but generates very little or no profits due to inactive purchasing behavior. Yet, it costs the firm money in the form of ongoing services, advertising, direct-mail spending, administration costs, etc. Especially in situations where a company provides the same level of service to all customers, the low-tier segment ties up companies’ resources, resulting in inefficient budget allocation. In this undifferentiated case of selling the same product at the same price to all customers, a company can make the entire customer base more profitable in one of two ways: either make a low-tier customer profitable via reactivation, or terminate the low-tier customer relationship.

Interestingly, although the number of unprofitable customers is often very large, little empirical research has dealt with the low-tier segment. The little existing research can be grouped along the CRM process and the customer life cycle; relationship initiation (acquisition),

maintenance (retention) and the last stages of reactivation and termination (see Figure 1, following Reinartz, Krafft & Hoyer, 2004). Table 1 presents an overview of studies on the low-tier segment in these four research fields.

<< Figure 1 about here >>

The first area of research refers to relationship initiation. Several studies address the acquisition of customers (e.g., Elsner, Krafft & Huchzermeier, 2004), and the link between acquisition and retention (e.g., Reinartz, Thomas & Kumar 2005; Thomas, 2001). Cao and Gruca (2005) relate to the aspect of low-tier customer segments within the context of acquisition as they deal with adverse selection. They identify strategies for the exclusion of unprofitable customers during the acquisition process by focusing on the relationship between the likelihood of a customer's response to an offer and the likelihood that the customer will become a valuable (approved) client. In addition, Venkatesan and Kumar (2004) recommend the allocation of marketing resources based on their CLV modeling approach which can be used as a metric for the exclusion of low-tier customers.

<< Table 1 about here >>

An extensive stream of research has been conducted on customer maintenance, the second stage of the CRM process. Topics include customer lifetime value (CLV) modeling, cross-selling and up-selling analyses, and retention strategies. Different modeling approaches regarding lifetime value lay the grounds for a financial evaluation of the customer base and are useful for identifying low-tier customers (for an overview see Gupta et al., 2006). To our knowledge, only one paper focuses on the CLV of the low-tier segment: Haenlein, Kaplan, and Schoder (2006) discuss the aspect of service exclusion for unprofitable customers and incorporate this in their CLV model approach. Based on the real-options theory, they argue that firms have the option of abandoning unprofitable customers; ignoring this option may lead to biased CLV scores.

Numerous papers in the extant literature deal with cross-selling or up-selling techniques for medium and top-tier customers (e.g., Kamakura, Kossar & Wedel, 2004; Bolton, Lemon & Verhoef, 2007; Akcura & Srinivasan, 2005). Strategies on how to serve these clients even better to increase loyalty, generate additional sales, and establish long-term profitability have been discussed

in detail. Recently, Homburg, Droll, and Totzek (2008) analyzed interdependencies between customer segments and show that customer prioritization of high-tier customers has no negative effect on the average satisfaction of low-tier customers.

With regard to customer retention, extant literature focuses on developing models to predict retention or churn probability of customers (Reinartz, Thomas & Kumar, 2005 or see Neslin, Gupta, Kamakura, Lu & Mason, 2006 for a methodology comparison). Customer lifetime value is often used as the key determinant to model customer churn (e.g., Glady, Baesens & Croux, 2009). In addition, literature focus on determining factors that drive customer retention versus churn (Mittal & Kamakura, 2001). For example, Schweidel, Fader, and Bradlow (2008) showed that five variables, namely the duration of the customer relationship, promotional activity, subscriber heterogeneity, cross-cohort effects (systematic differences in customer's behavior comparing younger and older cohorts), and seasonal effects, are key determinants in predicting customer retention in the service industry. Although retention is preferred over churn for most customers in the customer base, this is not necessarily the case for low-tier customers (Mittal, Sarkees & Murshed, 2008), an issue that increases the significance of the final stage of the CRM process: relationship reactivation and/or termination.

Customer reactivation has been studied in the context of customer defection (Reichheld, 1996). Hence, existing research focused on "lost customers" (Griffin & Lowenstein, 2001), where the customer has already left the company and may have switched to a competitor. Tokman, Davis, and Lemon (2007) for example identified price and service benefits, social capital and service importance as the key drivers for successful customer reacquisition. Furthermore, customer defection has typically been studied in the context of recovery after product or service failures, thus mainly in situations caused by the company (Keaveney, 1995). Finally, so far, mainly price promotion tools have been analyzed to measure performance of winback offers (e.g., Stauss & Friege, 1999; Thomas, Blattberg & Fox, 2004). A broader perspective is provided by Homburg, Hoyer, and Stock (2007), who identify perceived justice, overall satisfaction, variety-seeking behavior, and involvement as factors driving the success of customer relationships. They find that the success of retrieval activities of a telecommunication company depends not only on the monetary or non-monetary offer made to the lost customer, but also on the interaction with the lost customer during the revival activities, which leads to revival-specific customer satisfaction.

The final stage of the CRM process could be active relationship termination by the company, or selective demarketing (Kotler & Levy, 1971). This is emerging as an important topic in the public sector as well (Beeton & Benfield 2002; Comm, 1997; Grinstein & Nisan, 2009). Several papers provide a theoretical framework for the termination of customer relationships without empirical validation (e.g., Coulter & Ligas, 2000; Dwyer, Schurr & Oh, 1987). To our best knowledge, very few papers deal with the affected segment and analyze the effects of an executed marketing action. Kim and Lee (2007) theoretically model the negative effects of relationship termination in case customers have a strategic value for the company in a market with network externalities. A similar context has more recently been studied by Gupta and Mela (2008), who explore the value of “free customers.” They argue that, in the case of direct and indirect network effects, even customers who do not pay for a service (free customers) might have a positive value to the network, because they attract more customers to the network.

Many case studies (e.g., Alajoutsijärvi, Möller & Tähtinen, 2000) and managerial papers (Kumar, Venkatesan & Reinartz, 2006; Mittal, Sarkees & Murshed, 2008; Zeithaml, Rust & Lemon, 2001) indicate that low-tier customers require special attention and treatment. Yet, this literature overview shows that extant research has largely neglected this area, meaning that the low-tier customer treatment approach remains unclear, as well as the expected response from these customers. We address this gap in the literature and study the customer response to an executed marketing action.

3. Research Questions

The executed “last call” marketing action informed the customer about the current relationship status and provided – with a catalogue and financial incentive – an opportunity to buy again. The action was designed in terms of a friendly but ascertained reminder. It asked for immediate response by the customer and provides indirect information about a potential service stop in case of further non-purchases. Therefore, the action also leads to the fact that customers are evocative of their active past relationship with the company.

Customer responses to this kind of action aimed at reactivation or termination of the customer-firm relationship may depend on customer’s general need to belong (Baumeister & Leary, 1995). Belongingness theory articulates the motivation of individuals to be accepted and to form

and maintain relationships (Baumeister & Leary, 1995; DeWall, Baumeister & Vohs, 2008). This motivation not only has an impact on cognition and emotion, but also on the behavior of human beings. For a customer with a strong need to belong, a company's action questioning the relationship status will intensify that customers' need to find acceptance; in this case, a positive reaction in terms of a purchase can be expected. In addition, a "last call" marketing action containing a financial incentive is expected to further increase the likelihood of response (Baumeister, Dewall, Ciarocco & Twenge, 2005). On the other hand, if a customer's need to belong is low, a company's attempt at reactivation is less likely to lead to future purchases. Hence, in the context of customer-company relationships, rationales for reactivation or termination of the relationship can be provided for both directions and depend on the degree of customers' need to belong.

For a comprehensive evaluation of the company's action, both short- and long-term effectiveness of the marketing action is essential. On the one hand, the action may work as a direct stimulus due to a financial benefit being offered. This would increase purchases within the action period. On the other hand, research about RFM (recency, frequency, monetary value) suggests higher purchase activity for customers with recent transactions (Fader, Hardie & Lee, 2005). Hence, the marketing action and the resulting purchases could truly reactivate customers and stimulate purchase behavior after the action period. This leads us to the following two research questions:

RQ1: What is the effect of a "last call" marketing action to low-tier customers on their buying behavior during the action period?

RQ2: What is the effect of a "last call" marketing action to low-tier customers on their buying behavior after the action period?

Regarding the effects on buying behavior, a marketing action targeted towards low-tier customers may impact their satisfaction with the company. If no reactivation in sales can be achieved, the action leads to a termination of the relationship – the company stops serving the customer. Reactance theory suggests that a reduction of perceived individual choices leads to a defense reaction by an individual (Brehm, 1966). Hence, a company communicating that the customer-company relationship will be terminated may lead to reactance in terms of negative effects on attitudes and behavioral intentions. Reactance theory suggests negative effects especially if a customer considers the purchase option at the company to be important (Brehm & Brehm, 1981). On the other hand, if this choice is of minor importance for the customer little or no negative

effects can be expected. Additionally, the aspect of customer acknowledgement by the company has been identified as being critical in customer-company-relationships (Mittal, Sarkees & Murshed, 2008). By sending a reminder and asking for his needs, the customer becomes involved in the decision with regard to the relationship status, and the process is no longer one-sided. This might influence the satisfaction rating as well. Finally, an order initiated by the marketing action can, in turn, bring back customer satisfaction and loyalty. For example, Richins and Bloch (1991) find that shortly after purchase, situational involvement increases which strengthens a customer's motivation to feel satisfied. Therefore, with regard to satisfaction we study the following research question:

RQ3: What is the effect of a “last call” marketing action to low-tier customers on their satisfaction with the company?

Customers' word-of-mouth (WOM) is an important facet, as it covers the external impact of the company's action (Godes & Mayzlin, 2009). A marketing action may also induce word-of-mouth communication by customers. In particular, relationship termination could lead to negative word-of-mouth resulting in potential image risks. Research has shown that customer tension can be eased by spreading word-of-mouth (Anderson, 1998; Dichter, 1966). For customers who care about the relationship, reactance theory suggests responses in the form of negative word-of-mouth. In turn, no negative response is expected from customers with a low appreciation for the existing relationship. Second, similar to the results for satisfaction, higher positive word-of-mouth activity can be observed in the period shortly after purchase (Richins & Root-Shaffer, 1988). Hence, higher WOM activity can be expected in case the mailing initiates an order. Therefore, we formulate the following research question:

RQ4: What is the effect of a “last call” marketing action to low-tier customers on their (a) positive and (b) negative word-of-mouth about the company?

4. Research Design

To address the research questions, we conducted a field experiment. A European B2C catalogue retailer cooperated in this study. The catalogue retailer determined the status of its customers by using a scoring model (based on past purchase and return behavior, mailing response rate, etc.). We relied on this measure because the company uses it for their mailing program. In addition, current empirical studies show that advanced modeling approaches do not necessarily

outperform management heuristics (Wübben & von Wangenheim, 2008). The retailer then identified a segment of low-tier customers at “the edge” of becoming unprofitable. These were customers who (1) have been inactive for six months or longer, and (2) have a medium score based on past performance. At this point in time, the mailing of the next main catalogue, which induces substantial costs per customer, would lead to unprofitability if no purchase order is initiated. With these selection criteria we ensure to target a customer segment with an urgent need to act but also a promising segment as these clients are not completely lost yet and had at least a satisfying track record in their active past. The main goal of the action is to reactivate customers, initiate orders and thereby generate new sales (*reactivation*). However, it is also likely that a large percentage of this customer segment does not place additional orders. For those customers, the company will stop active service (mailing the catalogue) and advertising to save further costs (*termination*).

4.1. Sample and measurements

Data collection took place between September 2007 and April 2008. A quota sampling approach was used to obtain a representative sample of 12,000 persons from the low-tier customer segment. The sample was equally divided at random into three treatment and one control group. For the treatment groups, the retailer implemented the following action: sent a package with two small catalogues, a voucher with a value of 10 Euros, a reply postcard, and a cover letter. Only slight differences in appeal and wording of the cover letter were made between the treatment groups to test alternative descriptions of the current relationship status and the potential termination option. Furthermore, we distinguish between the three treatment groups in the analyses in order to control for potential effects of the variation in appeal and wording, but do not expect substantial differences between the three versions. The control group did not receive any package from the retailer. To check the mailing process, five dummy addresses were used, which were later dropped from the database, resulting in 11,995 cases available for further analysis.

We obtained transaction data from the customer database for a period of 30 consecutive weeks, starting with the day after the mailing was sent. Within this 30-week period, no other large marketing actions were conducted by the retailer; after this period, other promotions were run which would affect the study results. The voucher in the mailing was only valid for five weeks. Therefore, we split the observation period into two time spans, with the first period corresponding to the *action*

period and containing the first five weeks. We called the following 25 weeks the *post-action period*. To capture both short- and long-term effects, we study behavioral effects separately for the action period and the post-action period. As the average inter-purchase time for the entire customer base is about four months, we conclude that our observation period is long enough to assess the purchase behavior following the action. The transaction data consists of the number of orders per customer per period, and the corresponding Euro value per order. Due to administrative restrictions, we could not identify the order for which the voucher had been used, so the voucher value is not deducted from any purchase value. In addition, we obtain information on several customer characteristics like gender, age, and enrollment date from the customer database.

Next to the transaction data, we collected attitudinal information from the customers at the end of the observation period in the spring of 2008. Paper and pencil questionnaires were mailed to all 11,995 customers in the field experiment, along with a cover letter and postage paid return envelope. The cover letter appeared as a combination of company and university letterhead and was signed by a senior company official and a professor from the participating university. Respondents were requested to return completed questionnaires to the university.

The overall response rate was 10.4 %, which equals 1,245 questionnaires. Because of missing values the data set reduced to $N = 1,121$. The final sample consists of 25.1 %, 25.5 %, and 25.6 % from the three treatment groups, and 23.8 % from the control group, indicating an almost equal response rate across groups. To assess the issue of non-response bias, we tested whether respondents and non-respondents differ significantly with respect to demographic variables. There are no significant differences between the two groups regarding age, gender, and provenance. The same results were found when comparing early and late respondents (Armstrong & Overton, 1977). Based on these results, we conclude that there is no significant non-response bias.

In the survey, we measure customer satisfaction with questions about satisfaction regarding eight different aspects of the company's performance, which we combine to a mean index (Brown, Barry, Dacin & Gunst, 2005; Verhoef, 2003; von Wangenheim & Bayón, 2005). For word-of-mouth, we separate between positive and negative word-of-mouth (von Wangenheim, 2005), and ask respondents to answer questions regarding their positive and negative WOM frequency in the time period after the mailing. For detailed information on the measures, see the Appendix A.

4.2. Analysis

In the field experiment, we only observe order amount (in Euros) for customers who actually placed an order after the action. We address this sample selection problem with a type-2 Tobit model (Verbeek, 2008; Franses & Paap, 2007). Hence, two dependent variables are used: whether or not the customer made a purchase within that five-week period, and the monetary purchase value in Euros for those who made an order. As very few customers made more than one order per period, we interpret the total expenditures per period as the value of a single order. We split the observation period in two parts: AP indicating the *action period* of five weeks and PAP indicating the *post-action period* of 25 weeks. We combine this with the information on the three treatment groups and generate six dummy variables using the control group as the reference category (GROUP1_AP, GROUP2_AP, GROUP3_AP for the *action period* and GROUP1_PAP, GROUP2_PAP, GROUP3_PAP for the *post-action period*).

Past activity has proven to be a good predictor of future purchases (Rossi, McCulloch & Allenby, 1996). It has been shown, especially in direct marketing, that customers who made purchases most recently and more often are more likely to respond and purchase again (Thomas, Blattberg & Fox, 2004). We therefore include a dummy variable RECENCY, indicating whether a customer placed an order within the last three periods.¹ Note that purchases are observed only after the mailing, as none of the customers in the sample made a purchase in the six months before the mailing. In addition, we include three interaction effects between recent purchase activity and the treatment groups (GROUP1_PAP*RECENCY, GROUP2_PAP*RECENCY, GROUP3_PAP*RECENCY) to examine whether purchases induced by the mailing versus those made in the control group are different in terms of future behavioral loyalty.

Next, we apply Analysis of Covariance (ANCOVA) to study satisfaction and word-of-mouth differences between the treatment and control groups, while controlling for a variety of other factors. We include the treatment groups as a categorical variable named GROUP in the ANCOVA. As satisfaction and word-of-mouth are measured after the observation period of 30 weeks, we can include a dummy variable called ORDER, indicating whether or not the customer made at least one order in the period after the mailing. Finally, the interaction effect of treatment group and order will

¹ We also tested two metric variables indicating the number of orders in the last three periods as well as the number of periods since last purchase but there were no substantial differences in results. As interpretation is more convenient for the dummy variable we therefore rely on this measure.

be analyzed (GROUP*ORDER) to examine whether purchases induced by the mailing versus those made in the control group differ in terms of subsequent customer satisfaction and WOM behavior.

We include several control variables for both parts of the analysis. To accommodate for customer heterogeneity (Niraj, Gupta & Narasimhan, 2001), we control for three demographic variables: GENDER, AGE and RELATIONSHIP LENGTH with the company, the last ones both measured in years. Research has shown that a customer's prior experience with a company is important in determining his or her desire to maintain the status quo, and can therefore be a good predictor of reactivation (Bolton, Kannan & Bramlett, 2000). Since delivery service is one of the key elements of a mail-order company, it is relevant to also consider this facet. Therefore, we include two service indicators; LATE SHIPMENT, a variable indicating the percentage of delayed shipments due to out-of-stock, and NON-DELIVERY, a variable indicating the percentage of product non-deliveries relative to actual orders. Both variables are based solely on the time period before the action and cover up to 38 months of past behavior (depending on the individual length of customer relationship with the company). As payment policy is a crucial element of the business model of a catalogue retailer, we control for the fact that customers have used a PAYMENT PLAN in the past. We measure this variable as a percentage of the orders made using a payment plan relative to all orders, covering to 38 month before the action here as well. For summary statistics of the control variables see Appendix B.

5. Results and Discussion

In this section, we first present the results on the effects of the "last call" direct mailing on purchase behavior, followed by those on customer satisfaction and word-of-mouth.

5.1. Effects on purchase behavior

For the Tobit-2 model, the likelihood ratio statistic for significance of the explanatory variables is 23.47 (significant at $p=.05$), indicating a satisfactory model fit. The correlation between the selection equation and the equation for the purchase amount is high (-0.435 , $p=.01$), which underlines the need to apply a Tobit-2 model accounting for sample selection. As the correlation is negative, (unobserved) factors that make purchases more likely are associated with lower purchase values. In this case simple OLS modeling would lead to underestimation of the effects. Table 2 presents the model results.

<< Table 2 about here >>

For the selection equation, all three treatment groups have a similar significant positive effect in the first period. For the order amount equation, these groups have a negative effect, which is significant for group 1 and 3 – although only at a significance level of $p=.10$ – indicating that customers who received a mailing spent less in comparison to those who did not receive the mailing. Hence, the mailing has a positive impact on the customer's decision to buy, but has weak negative or no effects on the amount spent per order. Apparently, the marketing action provides an incentive to buy, but customers are attracted to buying items of lesser value.

For the period after the action, none of the main and interaction effects of the treatment groups are significant. Apparently, when the voucher from the mailing is no longer valid, little or no effect on purchase behavior remains.

As expected, recency has a significant, positive impact on the decision to buy in such a way that customers who recently ordered are more likely to buy again – compared to people who did not purchase lately. Interestingly, recency has a significant negative impact on the order amount. Hence, a recent purchase increases a customer's probability to buy again, but for a smaller monetary amount. None of the three interactions between the treatment groups and recency are significant. Hence, the positive recency effect on the purchase probability holds true for all four groups and does not depend on the specific treatment.

In summary, we observe significant effects for the treatment groups in the action period but no significant effects in consecutive periods. Hence, it may seem as though the company's action only stimulates short-term sales. However, in order to assess the long-term effects, the recency variable must be taken into account as well. Customers with recent transactions are more likely to buy again; therefore, the mailing-induced reactivation of the customers will have a long-term positive effect (Table 3). On average, the purchase probabilities in the action period (AP) are higher for customers who received a mailing (3.3 % compared to 1.5 %). For customers who did not order in the first period, the purchase probability in the post-action period (PAP) is virtually identical between customers who received the mailing and those that did not. For customers who did order in the action period, the purchase probabilities in the post-action period are also highly similar for both groups, namely 24.0 % and 25.0 %. Calculating the purchase probabilities after the action period (0.79 ‰ compared to 0.37 ‰), it becomes clear that the “last call” mailing did reactivate some

customers, resulting in a relatively high repurchase probability compared to customers that did not receive a mailing.

<< Table 3 about here >>

Next, we calculate total revenue and profitability effects based on the empirical data collected within the experiment. Due to confidential reasons we are not able to disclose actual numbers; but Table 4 displays the “lift” in number of customers and purchase values, respectively. The numbers show how much more likely the treatment group is to buy and accordingly how much more they will spend – compared to the control group. Specifically, we report the ratio between the empirical results for the treatment and control group. Thus, “lift” being equal to one means that the “last call” marketing action does not provide any power with regard to retention because the targeted customers are no more likely to buy than the control group. Therefore, lift should be greater than one (if aiming for retention).

<< Table 4 about here >>

Based on information from the company, we consider mailing costs of 1 Euro per piece as well as incentive costs of 10 Euro per customer for the group of buyers. Results show that the executed “last call” marketing action only curtly breaks even with regard to the reactivation goal (Table 4 – lift in purchase value). Obviously, results highly depend on the variable mailing costs. Therefore, from the company’s perspective it is important to investigate a range of values upfront (e.g. mailing costs of 0.50€, 1.00€, 1.50€, and 2.00€) in order to assess possible break-even of the “last call” action.

It has to be kept in mind that the aim of the “last call” marketing action is not primarily to make profit within a relatively short period of time, but to alter the status of low-tier customers by either reactivation or termination of the relationship. This way the action will guide provision of future service levels. Even a small loss today caused by the action prevents the company from future and potential bigger losses by still serving unprofitable clients (e.g. mailing of the new main catalogue costs more than 10 Euro per customer).

Lastly, we also found some interesting results for the control variables: Female customers are more likely to make purchases after the action, but spend less per order than male customers, which

corresponds to previous findings on gender effects (e.g., Van Heerde & Bijmolt, 2005). In regards to age, the chances of buying decreases as age increases, whereas age has no significant effect on the order amount. As expected, the longer the customer-company relationship exists, the higher the chances are of buying; the amount of money spent increases as well. Customers who often used a payment-plan in the past are more likely to buy than those who have not, but this has no significant effect on the order amount. Finally, we observe significant positive effects for the service indicators late shipment and non-delivery. These results seem counterintuitive as they state that customers who experienced service failures in the past are more likely to buy again after the “last call” marketing action. A possible explanation could be that a service recovery incident makes the affected customers more loyal than customers who did not encounter a service failure, a phenomenon known as the so-called service recovery paradox (De Matos, Henrique & Vargas Rossi, 2007). This is also supported by the recent finding that a customer’s increasing product return behavior might (to a certain extent) even increase future purchases if the return process is handled well (Petersen & Kumar, 2009). In the case of our catalogue retailer, service problems such as late delivery or non-delivery are managed by a special service team, which indicate that our findings might indeed be related to the service recovery paradox.

5.2. Effects on satisfaction and word-of-mouth

We conducted three ANCOVAs to analyze the effects of the “last call” marketing action on satisfaction and positive and negative word-of-mouth. Table 5 presents the significance tests for each factor and covariate, and Table 6 presents all parameter estimates.

<< Table 5 about here >>

<< Table 6 about here >>

The results show an insignificant effect for the treatment group factor on customer satisfaction. Hence, there are no differences in customer satisfaction between customers who received a “last call” mailing and those who did not. The same result holds for the interaction effect between group and order. The factor order has a significant effect at the $p=.10$ level. Parameter estimates (Table 6) reveal a higher satisfaction level for customers who ordered compared to those who did not order in the entire period after the mailing. We also find intuitive results for the covariates, which are in line with existing research (e.g., Mittal & Kamakura, 2001). Gender, age,

and relationship length are significant; parameter estimates show that customers who are female, older and have a longer relationship with the company are more satisfied.

Results for positive word-of-mouth (Tables 5 and 6) are similar to the findings for satisfaction. Again, the treatment group and the interaction effect of group and order are not significant. Also, order and customers age are the most influential variables. Customers who ordered in the time period after the mailing spread more positive word-of-mouth compared to customers who did not. Results for age show that older customers have a higher propensity to engage in spreading positive word-of-mouth.

Like earlier findings, negative word-of-mouth (Tables 5 and 6) does not differ significantly between the four treatment groups. Therefore, the “last call” mailing did not generate negative external effects in terms of customers complaining to other (potential) customers. For this model, the only significant variable is the late shipment indicator. On the one hand, the effect seems intuitive because customers who often experienced a delayed shipment of products might have the wish to ease their tension and talk about it (Anderson, 1998). On the other hand, one might argue that the results contradict with the findings of the positive late shipment effect on purchase behavior. Clearly, an explanation can only be speculative, but following McCollough, Berry, and Yadav (2000) it is important – within the context of service recovery paradox – to further differentiate between low-harm and high-harm failures. Therefore, depending on the context customers are less (or more) likely to complain. In addition, the individual level of harm varies between customer and context. This illustrates that the service recovery paradox is not only one-dimensional. Significant positive correlation between purchase amount and late shipment for the group of complainers (negative word-of-mouth) further supports this idea.

To conclude, neither customer satisfaction, nor (positive or negative) word-of-mouth differs between the treatment groups. Hence, the fact that customers received a “last call” mailing did not lead to substantial direct changes in terms of satisfaction and word-of-mouth. However, an indirect positive effect occurs because the marketing action leads to more purchases, which subsequently leads to higher satisfaction and more positive WOM.

6. Conclusion and Implications

6.1. Conclusion

Customer relationship management literature has focused on the management of “valuable” customers along the stages of the customer relationship management process. The question of how to deal with unprofitable customers has mainly been addressed in conceptual papers (Coulter & Ligas, 2000; Dwyer, Schurr & Oh, 1987), and little empirical knowledge exists on how customers react to marketing actions targeted to low-tier customers. This is rather surprising, because the increasing measurement of CLV in companies eases the identification of customer segments that are already unprofitable or at the edge of breaking even. Thus, the important question arises of how to manage these customers in order to increase the CLV by either reactivating them or cutting the costs of serving the customer (Mittal, Sarkees & Murshed, 2008). Managing unprofitable customers is especially relevant in industries that have long-term contracts with customers whose behavior is different than what is expected (e.g., flat-rate heavy users of ISPs) or when companies provide expensive pre-sale or post-sale services (e.g., subsidized hardware or catalogue mailings).

Based on a large field experiment, we focus on the effects of a “last call” marketing action targeted at the low-tier segment of a B2C catalogue retailer. We analyze the response of the specific action on the individual customer level in three major areas (satisfaction, WOM, and purchase behavior). Grounding the effects of the “last call” action in the theoretical literature of belongingness theory and reactance theory, we examine short term (action period) and long term (post-action period) effects. We find that the “last call” marketing action is a fruitful option for managers, because it helps reactivate customers to a certain extent. Furthermore, the “last call” action involves the customers in the process of termination and provides a nice option to cutting service costs, because we do not find any significant impact on satisfaction or on (negative) WOM.

Our findings expand the customer relationship management literature not only regarding our focus on managing the low-tier segment at the end of the CRM process, but also because of the fact that we use several response measures of the individual customer to a “last call” action.

6.2. Management Implications

Based on the results, we can derive several implications for the management. First, we observe a short-term sales effect within the action period (RQ1) conditional upon customer treatment. Therefore, the company’s “last call” marketing action helps reactivate customers. The

effect size may seem small, but it is actually relatively large compared to general direct-mail effectiveness, which is usually in the very low one-digit percentage scale, sometimes even lower (Parry, 2009). Second, there are no significant direct sales effects after the action period (RQ2). At first glance, this result indicates no long-term effects on sales and may lead to a negative overall evaluation of the company's action. But here it is important to also consider the indirect effect: customers reactivated in the action period tend to remain customers and have a higher probability of staying with the company and generating future sales. Third, looking at absolute numbers, the "last call" action was not strong enough to initiate orders from a substantial amount of customers. Apparently, their need to belong regarding the company considered is not very distinct. In these cases, the company will terminate the relationship and save future costs of additional mailings and customer service measures. Therefore, the "last call" action helps the company select specific customers for the relationship termination process. It is even possible that the customer acknowledges the point that the company includes him or her in the process. Fourth, there are no significant results on customer satisfaction with respect to the mailing (RQ3). Hence, the company's action does not lead to substantial changes regarding the customer's evaluation of different performance components. In addition, neither positive nor negative word-of-mouth is significantly affected by the mailing (RQ4). These results are reassuring, since they indicate that companies considering termination of customer relationships through a "last call" mailing do not necessarily need to anticipate a substantial decrease in customer satisfaction and negative word-of-mouth.

We can conclude on the one hand that the company's "last call" marketing action is a viable option for managing the low-tier segment as it reactivates customers and stimulates additional sales. Also important is the fact that the impact of the mailing has long-term relevance for reactivated customers. On the other hand, the "last call" action helps earmark a substantial number of relationships for termination without having to fear negative external effects. Both outcomes will increase profitability through either additional sales or cost cutting.

6.3. Limitations and Further Research

The study contains several limitations, but also shows options for further research in the field of relationship reactivation and termination. First, we only considered a single marketing action. Further research should examine implementation and benchmarking of multiple actions. This line of research could provide insights on the (optimal) design of the marketing action, leading to various

outcomes in terms of customer response, depending, for example, on the perceived personal relevance of belonging to the group of the firm's customers (Baumeister & Leary, 1995).

Second, we did examine revenue and profit consequences of the marketing action, but due to confidential reasons we are not able to reveal detailed information about actual costs and profits of the marketing action. To evaluate the net present value of the action, one must relate revenues to margins and other costs for the company but also consider potential future cost savings due to relationship termination with low-value customers.

Finally, we present a field experiment conducted in a business-to-consumer market without long-term contracts between the customer and the company in a single European country; further studies could validate the findings for other markets and contractual settings (e.g., telecommunication services), as well as other countries.

To conclude, the study at hand is the first that addresses management of the low-tier customer segment and combines purchasing behavior data with attitudinal measures. We present empirical results demonstrating the options for relationship reactivation and termination, which should encourage further research to continue along this road.

Appendix A. Operationalization of satisfaction and WOM measures

Construct	Variable	Operationalization	Source
satisfaction	satisfaction index (formative scale)	index based on 8 items, 7-point-likert scale: <i>How satisfied are you with the following components:</i> - assortment/offer - ordering possibilities - product quality - delivery/availability - value-for-money - payment policy - return policy - information service	Brown et al., 2005; Stuart, 1997; Verhoef, 2003; von Wangenheim and Bayón, 2005
word-of-mouth	positive WOM frequency	single item, metric variable: <i>Did you say something positive about company X in the last half year during discussion with friends, relatives or colleagues? If yes, how often did that happen?</i>	von Wangenheim, 2005; von Wangenheim and Bayón, 2005
	negative WOM frequency	single item, metric variable: <i>Did you say something negative about company X in the last half year during discussion with friends, relatives or colleagues? If yes, how often did that happen?</i>	

Appendix B. Descriptive results for covariates

Covariate	Variable	Operationalization	Mean or %	SD
demographics	gender	dummy (1 = female)	81 %	---
	age	in years	42.920	11.168
	relationship length	in years	8.224	5.662
service indicators	late shipment	in % of orders (range: 0-1)	0.127	0.294
	non-delivery	in % of orders (range: 0-1)	0.022	0.113
	pay-plan use	in % of orders (range: 0-1)	0.015	0.109

References

- Akcura, M. T. and Srinivasan, K. (2005). Customer Intimacy and Cross-Selling Strategy. *Management Science*, 51 (6), 1007-12.
- Alajoutsijärvi, K., Möller, K. and Tähtinen, J. (2000). Beautiful exit: how to leave your business partner. *European Journal of Marketing*, 34 (11/12), 1270-89.
- Anderson, E. W. (1998). Customer Satisfaction and Word-of-Mouth. *Journal of Service Research*, 1 (1), 5-17.
- Ang, L. and Taylor, B. (2005). Managing customer profitability using portfolio matrices. *Journal of Database Marketing & Customer Strategy Management*, 12 (4), 298-304.
- Armstrong, J. S. and Overton, T. (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, 14 (3), 396-402.
- Baumeister, R. F., Dwall, C. N., Ciarocco, N. J. and Twenge, J. M. (2005). Social Exclusion Impairs Self-Regulation. *Journal of Personality & Social Psychology*, 88 (4), 589-604.
- Baumeister, R. F. and Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117 (3), 497-529.
- Beeton, S. and Benfield, R. (2002). Demand Control: The Case for Demarketing as a Visitor and Environmental Management Tool. *Journal of Sustainable Tourism*, 10 (6), 497-513.
- Bolton, R. N., Lemon, K. N. and Verhoef, P. C. (2007). Expanding Business-to-Business Customer Relationships: Modeling the Customer's Upgrade Decision. *Journal of Marketing*, 72 (1), 46-64.
- Bolton, R. N., Kannan, R. K. and Bramlett, M. D. (2000). Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value. *Journal of the Academy of Marketing Science*, 28 (1), 95-108.
- Brehm, J. W. (1966). *Theory of psychological reactance*. New York: Academic Press.
- Brehm, S. S. and Brehm, J. W. (1981). *Psychological reactance: a theory of freedom and control*. New York: Academic Press.

- Brown, T. J., Barry, T. E., Dacin, P. A. and Gunst, R. F. (2005). Spreading the Word: Investigating Antecedents of Consumers' Positive Word-of-Mouth Intentions and Behaviors in a Retailing Context. *Journal of the Academy of Marketing Science*, 33 (2), 123-38.
- Cao, Y. and Gruca, T. S. (2005). Reducing Adverse Selection Through Customer Relationship Management. *Journal of Marketing*, 69 (4), 219-29.
- Comm, C. L. (1997). Demarketing Products Which May Pose Health Risks: An Example of the Tobacco Industry. *Health Marketing Quarterly*, 15 (1), 95-102.
- Coulter, R. A. and Ligas, M. (2000). The Long Good-Bye: The Dissolution of Customer-Service Provider Relationships. *Psychology & Marketing*, 17 (8), 669-95.
- De Matos, C. A., Henrique, J. L. and Vargas Rossi, C. A. (2007). Service Recovery Paradox: A Meta-Analysis. *Journal of Service Research*, 10 (1), 60-77.
- DeWall, C. N., Baumeister, R. F. and Vohs, K. D. (2008). Satiated With Belongingness? Effects of Acceptance, Rejection, and Task Framing on Self-Regulatory Performance. *Journal of Personality & Social Psychology*, 95 (6), 1367-82.
- Dichter, E. (1966). How Word-of-Mouth Advertising Works. *Harvard Business Review*, 44 (6), 147-67.
- Dwyer, F. R., Schurr, P. H. and Oh, S. (1987). Developing Buyer-Seller Relationships. *Journal of Marketing*, 51 (2), 11-27.
- Elsner, R., Krafft, M. and Huchzermeier, A. (2004). Optimizing Rhenania's Direct Marketing Business Through Dynamic Multilevel Modeling (DMLM) in a Multicatalog-Brand Environment. *Marketing Science*, 23 (2), 192-206.
- Fader, P. S. and Hardie, B. G. S. (2007). How to project customer retention. *Journal of Interactive Marketing*, 21 (1), 76-90.
- Fader, P. S., Hardie, B. G. S. and Lee, K. L. (2005). RFM and CLV: Using Iso-Value Curves for Customer Base Analysis. *Journal of Marketing Research*, 42 (4), 415-30.
- Franses, P. H. and Paap, R. (2007). *Quantitative models in marketing research*. Cambridge: Cambridge University Press.
- Glady, N., Baesens, B. and Croux, C. (2009). Modeling churn using customer lifetime value. *European Journal of Operational Research*, 197 (1), 402-411.

- Godes, D. and Mayzlin, D. (2009). Firm-Created Word-of-Mouth Communication: Evidence from a Field Test. *Marketing Science*, 28 (4), 721-39.
- Griffin, J. and Lowenstein, M. W. (2001). *Customer Winback: How to Recapture Lost Customers - And Keep Them Loyal*. San Francisco: Jossey-Bass Business & Management.
- Grinstein, A. and Nisan, U. (2009). Demarketing, Minorities, and National Attachment, *Journal of Marketing*, 73 (2), 105-22.
- Gupta, S., Hanssens, D. Hardie, B. G. S., Kahn, W., Kumar, V., Lin, N. and Sriram, N. R. S. (2006). Modeling Customer Lifetime Value. *Journal of Service Research*, 9 (2), 139-55.
- Gupta, S. and Mela, C. F. (2008). What Is a free Customer Worth?. *Harvard Business Review*, 86 (11), 102-09.
- Haenlein, M. and Kaplan, A. M. (2009). Unprofitable Customers and their Management. *Business Horizons*, 52 (1), 89-97.
- Haenlein, M., Kaplan, A. M. and Schoder, D. (2006). Valuing the Real Option of Abandoning Unprofitable Customers when calculating Customer Lifetime Value. *Journal of Marketing*, 70 (3), 5-20.
- Homburg, C., Droll, M. and Totzek, D. (2008). Customer Prioritization: Does It Pay Off, and How Should It Be Implemented?. *Journal of Marketing*, 72 (5), 110-30.
- Homburg, C., Hoyer, W. D. and Stock, R. M. (2007). How to get lost customers back?. *Journal of the Academy of Marketing Science*, 35 (4), 461-74.
- Kamakura, W. A., Kossar, B. S. and Wedel, M. (2004). Identifying Innovators for the Cross-Selling of New Products. *Management Science*, 50 (8), 1120-33.
- Keaveney, S. M. (1995). Customer switching behavior in service industries: An exploratory study. *Journal of Marketing*, 59 (2), 71-82.
- Kim, E. and Lee, B. (2007). An economic analysis of customer selection and leveraging strategies in a market where network externalities exist. *Decision Support Systems*, 44 (1), 124-34.

Kotler, P. and Levy, S. J. (1971). Demarketing, yes, demarketing. *Harvard Business Review*, 79 (6), 74-80.

Kumar, V., Venkatesan, R. and Reinartz, W. J. (2006). Knowing What to Sell, When, and to Whom. *Harvard Business Review*, 84 (3), 131-37.

McCollough, M. A., Berry, L. L. and Yadav, M. S. (2000). An Empirical Investigation of Customer Satisfaction after Service Failure and Recovery. *Journal of Service Research*, 3 (2), 121-137.

Michalski, S. (2004). Types of Customer Relationship Ending Processes. *Journal of Marketing Management*, 20 (9/10), 977-999.

Mittal, V. and Kamakura, W. A. (2001). Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics. *Journal of Marketing Research*, 38 (1), 131-42.

Mittal, V., Sarkees, M. and Murshed, F. (2008). The Right Way to Manage Unprofitable Customers. *Harvard Business Review*, 86 (4), 94-102.

Neslin, S. A., Gupta, S., Kamakura, W., Lu, J. and Mason, C. H. (2006). Defection Detection: Measuring and Understanding the Predictive Accuracy of Customer Churn Models. *Journal of Marketing Research*, 43 (2), 204-211.

Niraj, R., Gupta, M. and Narasimhan, C. (2001). Customer Profitability in a Supply Chain. *Journal of Marketing*, 65 (3), 1-16.

Parry, T. (2009). Onlineshoes.com steps into print catalog channel. *Multichannel Merchant*, 5 (1), 8.

Petersen, J. A. and Kumar, V. (2009). Are Product Returns a Necessary Evil? Antecedences and Consequences. *Journal of Marketing*, 73 (May), 35-51.

Reichheld, F. F. (1996). Learning from Customer Defections. *Harvard Business Review*, 74 (2), 56-69.

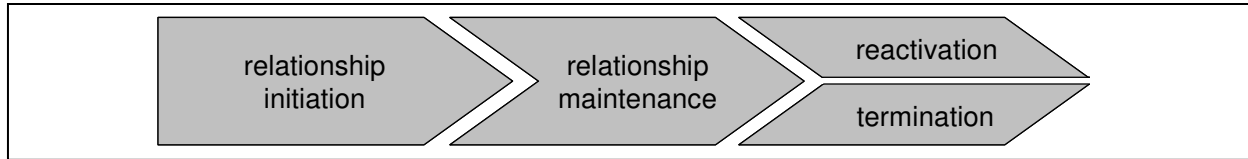
Reinartz, W., Krafft, M. and Hoyer, W. D. (2004). The Customer Relationship Management Process: Its Measurement and Impact on Performance. *Journal of Marketing Research*, 41 (3), 293-305.

- Reinartz, W., Thomas, J. S. and Kumar, V. (2005). Balancing Acquisition and Retention Resources to Maximize Customer Profitability. *Journal of Marketing*, 69 (1), 63-79.
- Richins, M. L. and Bloch, P. H. (1991). Post-Purchase Product Satisfaction: Incorporating the Effects of Involvement and Time. *Journal of Business Research*, 23 (2), 145-58.
- Richins, M. L. and Root-Shaffer, T. (1988). The Role of Involvement and Opinion Leadership in Consumer Word-of-Mouth: An Implicit Model Made Explicit. *Advances in Consumer Research*, 15 (1), 32-36.
- Rossi, P. E., McCulloch, R. E. and Allenby, G. M. (1996). The value of purchase history data in target marketing. *Marketing Science*, 15 (4), 321-41.
- Schmittlein, D. C., Morrison, D. G. and Colombo, R. (1987). Counting your Customers: Who are they and What Will they Do Next?. *Management Science*, 33 (1), 1-24.
- Schweidel, D. A., Fader, P. S. and Bradlow, E. T. (2008). Understanding Service Retention Within and Across Cohorts Using Limited Information. *Journal of Marketing*, 72 (1), 82-94.
- Shapiro, B. P., Rangan, V. K., Moriarty, R. T. and Ross, E. B. (1987) Manage customers for profits (not just sales). *Harvard Business Review*, 65 (5), 101-08.
- Stauss, B. and Friege, C. (1999). Regaining Service Customers: Costs and Benefits of Regain Management. *Journal of Service Research*, 1 (4), 347-61.
- Stuart, F. I. (1997). Supplier alliance success and failure: a longitudinal dyadic perspective. *International Journal of Operations & Production Management*, 17 (6), 539-57.
- Thomas, J. S. (2001). A Methodology for Linking Customer Acquisition to Customer Retention. *Journal of Marketing Research*, 38 (2), 262-68.
- Thomas, J. S., Blattberg, R. C. and Fox, E. J. (2004). Recapturing Lost Customers. *Journal of Marketing Research*, 41 (1), 31-45.
- Tokman, M., Davis, L. M. and Lemon, K. N. (2007). The WOW factor: Creating value through win-back offers to reacquire lost costumers. *Journal of Retailing*, 83 (1), 47-64.
- Van Heerde, H. J. and Bijmolt, T. H. A. (2005). Decomposing the Promotional Revenue Bump for Loyalty Program Members Versus Nonmembers. *Journal of Marketing Research*, 42 (4), 443-57.

- Venkatesan, R. and. Kumar, V. (2004). A Customer Lifetime Value Framework for Customer Selection and Resource Allocation Strategy. *Journal of Marketing*, 68 (4), 106-25.
- Verbeek, M. (2008). *A Guide to Modern Econometrics* (3. ed.). West Sussex: John Wiley & Sons, Ltd.
- Verhoef, P. C. (2003). Understanding the Effect of Customer Relationship Management Efforts on Customer Retention and Customer Share Development. *Journal of Marketing*, 67 (4), 30-45.
- Von Wangenheim, F. (2005). Postswitching Negative Word of Mouth. *Journal of Service Research*, 8 (1), 67-78.
- Von Wangenheim, F. and Bayón, T. (2005). Satisfaction, loyalty and word of mouth within the customer base of a utility provider: Differences between stayers, switchers and referral switchers. *Journal of Consumer Behaviour*, 3 (1), 211-20.
- Wübben, M. and von Wangenheim, F. (2008). Instant Customer Base Analysis: Managerial Heuristics Often "Get it Right". *Journal of Marketing*, 72 (3), 82-93.
- Zeithaml, V. A., Rust, R. T. and Lemon, K. N. (2001). The Customer Pyramid: Creating and Serving Profitable Customers. *California Management Review*, 43 (4), 118-42.

Figures

FIGURE 1: Stages of CRM process



Tables

TABLE 1: Related literature

Study	Industry	Data	Findings
Acquisition			
Cao and Gruca, 2005	financial service provider	customer data N = 7,854	development of an approach to reduce the chances of acquiring unprofitable customers
Venkatesan and Kumar, 2004	computer hardware and software manufacturer (B2B)	customer panel data N = 1,316 and N = 873	CLV approach can be used to exclude low-tier customers from acquisition, leads to higher ROI
Retention			
Haenlein, Kaplan, and Schoder, 2006	direct-mail catalogue retailer	(simulation study)	including the option of 'no service effort for unprofitable customers' in CLV model
Homburg, Droll, and Totzek, 2008	ten different industries (B2B and B2C)	management survey N = 310	no negative effects on low-tier customers because of high-tier customer prioritization
Reactivation			
Homburg, Hoyer, and Stock, 2007	telecommunication service provider	customer survey N = 110	perceived justice, overall satisfaction, variety seeking, involvement, and age drive success of reactivation
Thomas, Blattberg, and Fox, 2004	newspaper subscription	customer panel data N = 566	optimal pricing strategy involves a low reacquisition price and higher prices when customers have been reacquired
Termination			
Kim and Lee, 2007	service products with network externalities	(theoretical model)	demarketing based on profitability measures is counterproductive and socially undesirable if unprofitable customers have strategic network value

TABLE 2: Tobit-2 model results for the effects on purchase behavior

Variables	Main Equation: Order amount			Selection Equation: Order yes/no		
	Coefficient	Std. Error	z-Statistic	Coefficient	Std. Error	z-Statistic
constant	463.343	52.998	8.74***	-2.142	.056	-38.48***
group1_AP	-44.127	25.159	-1.75*	.395	.050	7.96***
group2_AP	-35.438	27.681	-1.28	.249	.054	4.59***
group3_AP	-42.907	25.966	-1.65*	.337	.051	6.55***
group1_PAP	11.222	17.991	.62	.021	.037	0.56
group2_PAP	5.966	18.284	.33	-.018	.037	-0.47
group3_PAP	4.463	18.338	.24	-.002	.037	-0.05
recency	-57.150	20.107	-2.84***	.723	.078	9.27***
group1_PAP * recency	---	---	---	-.104	.106	-0.98
group2_PAP * recency	---	---	---	.074	.104	0.72
group3_PAP * recency	---	---	---	-.048	.103	-0.46
gender (1 = female)	-38.674	15.566	-2.48**	.056	.030	1.86*
age	-.912	.580	-1.57	-.005	.001	-4.43***
relationship length	2.273	1.087	2.09**	.006	.002	2.64**
late shipment	---	---	---	.377	.025	15.29***
non-delivery	---	---	---	.179	.070	2.58**
pay-plan use	10.584	39.713	.27	.317	.079	4.02***
	ρ	-.435	.0657			
	σ	234.306	8.361			
	λ	-101.809	18.592			
	N	71,856	(censored: 70,435; uncensored: 1,421)			
	Log likelihood	-16,209.76				

Significance: *** $p < .01$, ** $p < .05$, * $p < .10$; --- variable not included.

TABLE 3: Observed purchase probabilities during and after the action period

	Action				No Action			
	order		no order		order		no order	
Action Period	3.28 %		96.72 %		1.47 %		98.53 %	
	order	no order	order	no order	order	no order	order	no order
Post-Action Period	23.96 %	76.05 %	1.33 %	98.67 %	25.00 %	75.00 %	1.33 %	98.67 %
	3.28*23.96 = .79 ‰				1.47*25.00 = .37 ‰			

TABLE 4: “Lift” for number of buyers and purchase value*

	Lift for <i>number of buyers</i>	Lift for <i>purchase value</i>
Action Period	2,235	1,754
Post-action Period	1,065	1,147

* ratio between the empirical results for treatment and control group
1 = no changes between treatment and control groups

TABLE 5: ANCOVA results for satisfaction, positive and negative word-of-mouth

		Dependent variable		
		Satisfaction	Positive Word-of-Mouth	Negative Word-of-Mouth
Source of variation	df	F statistic	F statistic	F statistic
group	3	1.042	0.651	1.102
order (0/1)	1	3.463*	8.713***	0.102
group * order (0/1)	3	0.493	0.259	0.882
<i>Covariates</i>				
gender (1=female)	1	3.969**	0.001	0.044
age	1	8.894***	4.287**	0.241
relationship length	1	3.715*	1.972	0.001
late shipment	1	1.158	1.438	4.071**
non-delivery	1	0.364	0.440	2.523
pay-plan use	1	1.191	1.654	0.001
sample size		N=1,093	N=1,106	N=1,104

Significance: *** $p < .01$ ** $p < .05$ * $p < .10$

TABLE 6: Parameter estimates for satisfaction, positive and negative word-of-mouth

Parameter	Dependent variable		
	Satisfaction	Positive Word-of-Mouth	Negative Word-of-Mouth
	Coefficient	Coefficient	Coefficient
group1	-0.272	-0.499	0.226
group2	-0.085	-0.175	0.176
group3	-0.088	-0.318	-0.003
order (=0)	-0.217	-0.756**	0.042
group1 * order	0.215	0.385	-0.187
group2 * order	0.025	0.240	-0.121
group3 * order	0.094	0.366	0.059
<i>Covariates</i>			
gender (1=female)	0.138**	-0.006	0.013
age	0.007*	0.012**	-0.001
relationship length	0.010*	-0.017	0.000
late shipment	-0.083	-0.223	0.138**
non-delivery	-0.119	0.312	-0.275
pay-plan use	0.265	0.752	-0.006
constant	5.269	***	1.562***

Significance: *** $p < .01$ ** $p < .05$ * $p < .10$